## TABLE OF CONTENTS



## TABLE OF ATTACHMENTS

## 1.0 PURPOSE AND SCOPE
(7.1.1, 7.1.2, 7.1.3, 7.1.5, 7.1.6)

This procedure describes the processes that are used to communicate hazardous material information to all personnel who work with hazardous materials during any activity in the tank farms. The procedure meets all of the requirements and criteria of the Occupational Safety and Health Administration's (OSHA) 29 CFR 1910.1200, "Hazard Communication."

This procedure applies to all Tank Operations Contractor (TOC) personnel and subcontractors, except for personnel who work in laboratories that have a written safety program that complies with 29 CFR 1910.1450, "Laboratory Safety."

## 2.0 IMPLEMENTATION

This procedure is effective on the date shown in the header.

## 3.0 RESPONSIBILITIES
( 7.1.6)

### 3.1 Line Management

- Promotes the selection and use of chemicals that minimize hazards (especially where non-toxic, non-hazardous materials are available).
- Ensures that material safety data sheets (MSDSs) are readily accessible to employees in their work area(s) during each shift.
- Ensures that employees receive information and training on hazardous chemicals in their work areas at the time of their initial assignment.

### 3.2 Industrial Hygiene

- Assists employees in obtaining MSDSs.
- Answers questions regarding chemical constituents and substitutions.

NOTE: The Hazard Communication subject matter expert (SME) serves as the interpretive authority for this procedure.

### 3.3 Training Manager
(7.1.4)

- Ensures employees are provided training to comply with OSHA Hazard Communication training requirements. Depending on employee job duties, this training may include: but is not limited to: Chemical Hazards Awareness Training (351524), Chemical Hazards Awareness Training – Refresher (351542), Tank Operations Contractor Hanford General Employee Training, HGET (358001), 24-Hour TSD Hazardous Waste (031110) or 40 Hour Hazardous Waste Worker (031220), Tank Farm Orientation (350710), Tank Farm Facility Emergency/Hazard Identification Checklist [FEHIC], (03E060), 242-A Evaporator Facility Orientation (350540), 242-A Evaporator FEHIC (03E096), 222-S Laboratory Complex Orientation and FEHIC (000071).

## 4.0 PROCEDURE

(7.1.1, 7.1.2, 7.1.3, 7.1.5, 7.1.6)

This procedure does not apply to the following general categories of materials: (For additional clarification, consult the industrial hygiene subject matter expert.)

- Hazardous wastes/substances regulated by the Environmental Protection Agency under the Resource Conservation and Recovery Act and the Comprehensive Environmental Response Compensation and Liability Act, which includes the chemical and radiological wastes in tank farms
- Personal use items, such as foods/beverages, consumer products, cosmetics, drugs, and first aid supplies
- Manufactured articles that will not release a hazardous chemical under normal or anticipated conditions of use
- Tobacco or tobacco products
- Wood or wood products, except wood dust
- Ionizing and non-ionizing radiation hazards
- Biological hazards.
- Potable and non-potable water supplies.

### 4.1 Purchasing Potentially Hazardous Materials

| | |
|---|---|
| Requestor | 1. Ensure an appropriate storage location has been identified for the chemical in accordance with TFC-ESHQ-S_IH-C-47. Contact the chemical management point of contact (POC) for assistance as needed. |
| | 2. Initiate a purchase request using Tank Farm Material Supply System (TFMSS) in accordance with TFC-ESHQ-S_IH-C-47 for the purchase of a potentially hazardous material.<br><br>NOTE: An approved MSDS must be on file with the MSDS administrator. The Hazard Communication subject matter expert (SME), may approve a request if a current MSDS has been submitted to the Hanford MSDS administrator. |
| Industrial Hygiene | 3. Use Attachment A to perform hazard assessment. |
| | 4. If the hazard assessment indicates the material should not be used, inform the requestor (through the TFMSS) that the purchase request has been rejected. |

5. If the hazard assessment indicates the material being purchased contains a carcinogen, inform the requestor that the purchase of a carcinogenic material must be in accordance with TFC-ESHQ-IH-STD-11.

Requestor

6. Purchase the material in accordance with TFC-ESHQ-IH-STD-11 and TFC-ESHQ-S_IH-C-47.

Industrial Hygiene

7. Communicate any new information identified in the hazard assessment, including any materials that may be exempt from this procedure.

   NOTE: Communication may be by e-mail, memo, or inclusion in a Job Hazard Analysis Checklist.

### 4.2 Receiving Hazardous Materials

Material Coordinators

1. Receive hazardous material shipment in accordance with TFC-ESHQ-S_IH-C-47.

Line Manager or Delegate

2. Verify that the MSDS for the product is listed in the organization's chemical inventory list.

4. If there is no MSDS available for the material, complete the following substeps.

   a. Stage the material with a label that states "No MSDS, do not use."

   b. Contact material coordinator and Industrial Hygiene to clarify status of material.

5. Review the original manufacturer/importer/distributor label for the following required information:

   - Name and address of the manufacturer, importer or other responsible party
   - Identity of the material (i.e., product name)
   - Associated health and safety hazards, including target organs
   - And any other information required by applicable OSHA substance specific standards.

6. If an original container label is illegible or does not contain the required information, complete Section 4.4, step 2, as appropriate.

7. Place material into service.

### 4.3 Providing Right-to-Know Information

Line Manager/Delegate

1. Ensure the following are available to your employees:

   - The WRPS hazard communication procedure
   - Inventories for chemical storage locations accessed by supervised workers (available from the Chemical Management POC), or the Hazard Communication SME.

     NOTE: The inventory of a chemical storage location must include:

     – Product Name
     – Product Hanford MSDS#.

   - MSDS for chemicals found at those storage locations (available from the Hanford MSDS database on the Hanford intranet).

### 4.4 Maintaining Original Material Container Label Information

Line Manager

1. Perform periodic review of hazardous material container labels used or stored in the facility/project. Review labels for legibility and content.

Employees

2. Before commencing work with a hazardous material, ensure the container has the required label information by completing the following substeps.

   a. Review the label for legibility and content of the following required information:

      - Name and address of the manufacturer, importer or other responsible party
      - Identity of the material (i.e., product name)
      - Associated health and safety hazards, including target organs
      - And any other information required by applicable OSHA substance specific standards.

     NOTE: Any freight container, rail freight car, motor vehicle, or transport vehicle required to be marked or placarded in accordance with U.S. Department of Transportation (DOT) Regulations shall retain those markings and placards until the hazardous materials which require the marking or placarding are sufficiently removed to prevent any potential hazards.

b. If an original container label is illegible or does not list the required information, re-label the container with a completed Hanford Hazard Label in accordance with Attachment B. Actual labels may be obtained from the TOC Sign Shop in 11" x 14", 5" x 7", 2.75" x 3.75" and 1" x 1.5" sizes.

NOTE: The label described in Attachment B is a new label that is superseding the old hazardous materials label. The old label will be acceptable until June 30, 2003, providing that it is already attached to a container and that it contains all of the information required in this procedure.

c. If not enough information is available to fully complete the Hanford Hazard Label, complete the following substeps.

1) Ensure the container is taken out of service.

2) Take one of the following actions, as appropriate.

- Return the material to the vendor.
- Have the contents analyzed to ascertain the missing information.
- Handle the material as unknown waste.

NOTE: All Hanford workers that have access to HLAN may access MSDSs. This site provides real time access to MSDS and hazard information required for Hanford hazard levels. To access this information click on this link http://www7.rl.gov/msds/ or go to the Hanford Intranet and at the end of the address enter MSDS.

3. If a question of proper labeling occurs, contact Industrial Hygiene for assistance.

### 4.5 Transferring Hazardous Material to a Secondary Container

Employees

1. If chemicals are transferred from the original container to a secondary container, complete and affix a Hanford Hazard label to the secondary container in accordance with Attachment B. Complete all fields in the Hanford Hazard label - any labels with missing information are considered non-compliant.

NOTE: Chemicals transferred to portable containers for immediate use do not require a full label but must have a content identification on the container.

### 4.6 Handling Unlabeled Containers

Employee

1. Report to Manager/Supervisor

Manager/Supervisor

2. Report to Building Administrator

| | | |
|---|---|---|
| Building Administrator | 3. | Contact Industrial Hygiene and Waste Services |
| Industrial Hygiene | 4. | Evaluate Container. |
| Waste Services | 5. | Plan and dispose of container. |

## 5.0 DEFINITIONS

No terms or phrases unique to this procedure are used.

## 6.0 RECORDS

No records are generated in the performance of this procedure.

## 7.0 SOURCES

### 7.1 Requirements

1. 10 CFR 851, "Worker Safety and Health Program."
2. 29 CFR 1910, Subpart Z, "Toxic and Hazardous Substances."
3. 29 CFR 1910.1200(h)(3).
4. 29 CFR 1910.1201.
5. 29 CFR 1910, Section 1450, "Occupational exposure to hazardous chemicals in laboratories," paragraph (f), "Employee information and training," paragraphs (1), (2), and (4)(I).
6. 29 CFR 1926, Subpart Z, "Toxic and Hazardous Substances."
7. RPP-MP-003, "Integrated Environment, Safety, and Health Management System Description for the Tank Operations Contractor."

### 7.2 References

1. 29 CFR 1910, Subpart H, "Hazardous Materials," Section 120, "Hazardous Waste Operations and Emergency Response."
2. American Conference of Governmental Industrial Hygienists, "Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment."
3. TFC-BSM-CP_CPR-C-01, "Purchasing Card (P-Card)."
4. TFC-BSM-CP_CPR-C-06, "Procurement of Items (Materials)."
5. TFC-ESHQ-IH-STD-11, "Carcinogen Control."
6. TFC-ESHQ-S_IH-C-47, "Chemical Management Process."

7. TFC-PLN-34, “Industrial Hygiene Exposure Assessment Strategy.”

## ATTACHMENT A - TECHNICAL CRITERIA FOR HAZARD COMMUNICATION

Carcinogen: A chemical is considered to be a carcinogen if any one of the following conditions exist:

- OSHA has designated it as a carcinogen in 29 CFR 1910, Subpart Z.
- It has been identified by the American Conference of Governmental Industrial Hygienists (ACGIH) as an A1 (Carcinogen) or A2 (Suspected Human Carcinogen).
- It has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen (Group 1, Group 2A or Group 2B).
- It is listed as a carcinogen or potential carcinogen in the "Annual Report on Carcinogens" published by the National Toxicology Program (NTP) (latest edition).

  NOTE: Assume mixtures present a carcinogenic hazard if they contain at least 0.1 percent in volume or weight of a carcinogen.

Hazard Assessment (Chemical):

The Industrial Hygiene Exposure Assessment Strategy (TFC-PLN-34) provides guidance for conducting the hazard assessment. The purpose of the hazard assessment is to fulfill OSHA and DOE O 440.1 requirements to determine if the chemical is a hazardous chemical per 29 CFR 1910.1200 definitions, to determine if it is a carcinogen to be controlled per TFC-ESHQ-IH-STD-11, to determine if substitution with a less hazardous chemical is feasible, to assure that the hazards are communicated to affected employees, to plan for necessary industrial hygiene assessments and/or exposure monitoring, to determine appropriate administrative and/or engineering controls and to determine appropriate personal protective equipment needs. This analysis must ensure that the planned hazardous chemical use falls within the established "safety envelope" of the facility/project. It can be accomplished through judicious use of professional judgment combined with knowledge of the facility/operations and hazard controls. Where appropriate, and when employee exposure is anticipated, the hazard assessment may be documented via such means as baseline hazard assessments, Job Hazard Analysis, etc.

Hazardous Chemical: means any chemical that is a physical hazard or a health hazard.

1. Consider chemicals listed in these publications to be hazardous:
   - American Conference of Governmental Industrial Hygienists, "Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment" (latest edition)
   - OSHA 29 CFR 1910, Subpart Z, "Toxic and Hazardous Substances."
2. Consider a chemical to be hazardous if the material safety data sheet or other recognized resource, such as National Institute for Occupational Safety and Health (NIOSH) recommendations, indicates the chemical or product possesses any of the following hazard indicators.

**ATTACHMENT A - TECHNICAL CRITERIA FOR HAZARD COMMUNICATION (cont.)**

| | |
|---|---|
| • Highly toxic<br>• Other hazard indicators<br>• Carcinogenic<br>• Oxidizer<br>• Chronically toxic<br>• Peroxide or peroxide former<br>• Combustible liquid<br>• Poison<br>• Compressed gas<br>• Polymerization can occur<br>• Corrosive<br>• Reactive<br>• Explosive<br>• Reproductive hazard<br>• Flammable liquid | • Strong acid (low pH<2)<br>• Hazardous decomposition products<br>• Strong base (high pH>12)<br>• Highly toxic<br>• Target organ effect indicated<br>• Incompatible storage<br>• Teratogenic<br>• Eye/skin/respiratory irritant<br>• Toxic<br>• Low temperature storage<br>• Unstable/reactive<br>• Mutagenic<br>• Water reactive<br>• Sensitizer<br>• Flammable solid. |

Information (Employees): Per OSHA criteria, employee hazard communication information is the following:
(7.1.3)

- The requirements of 29 CFR 1910.1200
- Any operations in their work area where hazardous chemicals are present, and
- The location and availability of this procedure (the written Hazard Communication Program) including the required list(s) of hazardous chemicals, and MSDSs (e.g. Right to Know Station).

Training: Employee training shall include at least:
(7.1.3)

- Methods and observations that may be used to detect the presence or release of hazardous chemicals in the work area (such as continuous monitoring devices, visual appearance, and odors)
- Safe work practices for the chemical and physical agents present in their work place and work area
- What controls are in place to ensure exposures are reduced below OSHA established limits or limits set by the American Conference of Governmental Industrial Hygienists (ACGIH) (whichever is most restrictive)
- How to safely perform non-routine (infrequent, unfamiliar, or out of the ordinary) tasks involving hazardous chemicals or physical agents
- Hazards associated with chemicals in overhead and other piping systems
- Information about the physical and health hazards of chemicals in the work area

**ATTACHMENT A - TECHNICAL CRITERIA FOR HAZARD COMMUNICATION (cont.)**

- Measures that the employee can use to protect themselves from the hazards, including specific written procedures to follow and safety requirements

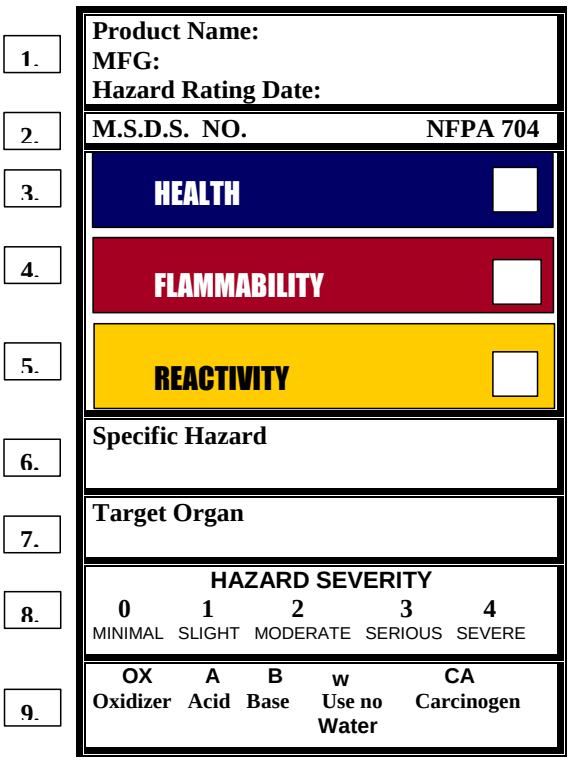
- Hazards they may be exposed to when working on or near another work site controlled by other employees or employers

- The details of this program, including an explanation of the labeling system, the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

**ATTACHMENT B – HANFORD HAZARD LABEL**

# Hanford Hazard Label Instructions

**NOTE: All fields in the Hanford Hazard label are mandatory! Labels with any missing information will be considered non-compliant.**




**1.** Block 1 requires three fields of information (as provided by the MSDS Administrator):

- Chemical/**Product Name**, including Product code/number if applicable
- Chemical/product **MFG. (Manufacturer or Distributor)**
- **Hazard rating Date**

**2.** Block 2 requires the six digit **Hanford MSDS Number** only. NFPA 704, is for information only.

**3.** Block 3 requires the NFPA **Hazard Severity** rating number for **HEALTH**, as provided by the MSDS Administrator.

**4.** Block 4 requires the NFPA **Hazard Severity** rating number for **FLAMMABILITY**, as provided by the MSDS Administrator.

**5.** Block 5 requires the NFPA **Hazard Severity** rating number for **REACTIVITY**, as provided by the MSDS Administrator.

**6.** Block 6 requires the **Specific Hazard(s)** (as identified in Block 9 of label) that may apply (as provided by the MSDS Administrator).

**7.** Block 7 requires **Target Organ(s),** as provided by the MSDS Administrator.

**8.** Block 8 for information only placed in Blocks 3, 4, 5, (do not circle).

**9.** Block 9 for information only (to be placed in Block 6, as provided by the MSDS Administrator).